

Massachusetts Water Resources Commission Meeting Minutes for January 8, 1998

Commission Members in Attendance:

Jan Reitsma	Designee, Secretary of Environmental Affairs,
Arleen O'Donnell	Designee, Department of Environmental Protection
Peter Webber	Commissioner, Department of Environmental Management
Joseph M. McGinn	Designee, Metropolitan District Commission
Jane Mead	Designee, Massachusetts Coastal Zone Management
Marilyn Contreas	Designee, Department of Housing and Community Development
Mark S. Tisa	Designee, Department of Fisheries, Wildlife, and Environmental Law Enforcement
Richard J. Butler	Public Member
Bob Zimmerman	Public Member
Francis J. Veale	Public Member
Gary Clayton	Public Member
Jeffrey Kapell	Public Member

Others in Attendance:

Mike Gildesgame	DEM, Office of Water Resources
Richard Thibedeau	Department of Environmental Management
Vicki Gartland	DEM, Office of Water Resources
Michele Drury	DEM, Office of Water Resources
Ellen Gugel	EOEA
Lou Wagner	Massachusetts Audubon Society
Duane LeVangie	DEP, Water Management Act
Lealdon Langley	DEP, WMP
Paul Blain	DEP, DWP
Mary Ellen Schloss	MAPC
Phillips Brady	Mass. Division of Marine Fisheries, Pocasset
Karen Pelto	DFWELE/Riverways
Ian Cooke	Neponset River Watershed Association
Michele Cobbin Barden	Neponset River Watershed Association
Kate Stewart	Neponset River Watershed Association
Mike Norris	USGS
Edward A. Boulter	Town of Rockport
Frederick R. Gersey	Town of Rockport
Jennifer Doyle-Breen	Metcalf and Eddy
Rhonda Pogodzienski	Metcalf and Eddy
Nick Barletta	Town of Rockport/Selectman
Chip Norton	Town of Rockport
Hank Ranghalt	Metcalf and Eddy

Agenda Item #1: Executive Director's Report

Mark Smith was out of town to attend a municipal water supply conference in Portland, Oregon. Jan Reitsma, EOEPA Policy Undersecretary attended in Mark's place, but there was no Executive Director's report this month.

Agenda Item #2: Vote: Adoption of the Minutes of December 11, 1997 Meeting

MWRA staff requested revisions of December's WRC meeting minutes regarding what was said about MWRA policies. The vote on the December minutes will be deferred until the Special Commission meeting on January 29.

Agenda Item #3: Vote: Interbasin Transfer application for Canton's Well #9

The deadline for the vote on this permit has been extended to January 31, 1998 by request of the Town of Canton in a memorandum dated January 8, 1998 to Richard Thibedeau. The memorandum states that they condition their request on not reopening the public comment period and that the permit have no additional conditions attached. Rich Thibedeau explained that these requests do not prohibit the WRC from adding conditions or from hearing from the public between now and the vote.

Zimmerman made a motion seconded by Butler to formally table agenda item #3 until a special meeting of the Commission. *The special meeting of the Commission, specifically to vote on Canton's Well #9 application, will be Thursday, January 29 at 1:30 PM in Room 17A.*

Agenda Item #4: Presentation on Rockport water supply issues

At last August's WRC meeting, there was a presentation on Rockport's water situation. Rockport is in a "closed" basin (North Coastal) according to DEP's determination of safe basin yield, but it is thought that the hydrology supports the proposed additional local withdrawals in Rockport. The streamflow threshold in the MEPA certificate signed by the Secretary in 1984 and in the project calculations was 0.05 cfs. However, the 1990 North Coastal basin plan recommended a streamflow threshold of 0.23 cfs. Apparently the basin plan number never came to anyone's attention until March 1997.

Town of Rockport officials and its consultant, Metcalf and Eddy, provided the following information:

- Lack of storage is the big problem in Rockport
- Water conservation efforts in Rockport are very good.
- Rockport's water management plan is complete, the SEIR is complete, and the new source approval has been submitted. No WMA application has been submitted yet.
- A water supply plan is required by the ACOE. Metcalf and Eddy evaluated options. They looked at desalinization, regional solutions, groundwater, surface water, and buying from outside. They reviewed 19 sources which were narrowed to 11, did a firm yield analysis, and researched population projections.

Questions arose on population projections and which source to use. Michele Drury said that her office usually uses the regional planning agency's numbers.

Joe McGinn expressed concern about the 100 gallon per person per day number. It was explained that both residential and commercial uses as well as seasonal fluctuations are included in the number. Rockport has a high seasonal daily population which throws things off: 7,600 year-round vs. 23,000 summer daily population.

Paul Blain of DEP showed slides of the proposed sources and discussed them. With 0.05 cfs, only three diversions are required: Saw Mill Brook, Mill Brook, Squam Road Brook. Using 0.23 cfs, three more diversions are needed to meet the Town's goal of having a total supply of 1 mgd: East Brook, South Brook, and Stoney Brook. All are ephemeral "flashy" streams that will be diverted only on certain days of the year. Last, an expansion of Flat Ledge Quarry from 28 mg to 146 mg with a new dam is planned. This will raise the water level in the reservoir from 20 feet to 55 feet.

The question of the difference in yield with three sources versus six sources arose. Quick calculations produced a difference of 2.5 to 3 mg/yr (a 3 percent difference) with diversions occurring an additional nine to ten days a year.

Bob Zimmerman asked what type of habitat is dependent on this flow. DFW said there are no anadromous fish in Saw Mill or Mill Brooks and that was how the 0.05 cfs was developed. It was also noted that East Brook flows into a salt marsh and it is 200 feet from the diversion to the marsh.

Note: Staff will provide a recommendation for a vote next month on the demand projections and on the minimum streamflow (.05 cfs vs. .23 cfs). The WRC vote provides an advisory opinion to DEP; this is not a regulatory vote.

Agenda Item #5: Discussion: WRC role/authority and relationships among water needs forecasts, Interbasin Transfers, New Source Approval, Water Management Act

Mike Gildesgame and Lealdon Langley presented an overview to WRC members on the process and chronology of municipalities bringing new water sources on line. In previous meetings, Commission members said that they would find such an overview helpful.

Water needs forecasts. It is a demand forecast only, estimating the amount of water a community will need at a certain date and does not address supply availability. This process is driven largely by population projections. The forecasting methodology last changed in 1991, when a disaggregated demand was instituted along with other measures intended to account for water conservation savings. The forecasts, once approved, inform Water Management Act permits as well as Interbasin Transfer Act permits.

Gary Clayton asked for information showing how well the forecasts have worked over time. Michele Drury explained that OWR looks to population forecasts from regional planning

agencies, UMass MISER, and communities to inform water needs forecasts. No performance summary was available.

River basin plans. These are hydrological and water use analyses by community, subbasin, and basin. An updated Taunton plan was recently completed, and the Housatonic is in progress. These are being coordinated with the five-year watershed cycle now. They are used as the basis of determining supply availability, identifying subbasin yields, forecasting water needs, and making recommendations for community water conservation programs and measures to increase water supply system efficiency.

An issue was raised regarding the coordination of the Water Management Act schedule and the five year basin planning schedule. Basin teams should be involved in new sources. DEP regions have lists of new source applications and this should be made known to basin team leaders. Jan Reitsma said the basin team is the vehicle for planning for water needs. It was also noted that the WRC should review the Basin Planning Work Group's documents for this and other items.

New Source Approval and Water Management Act. The NSA process is the preliminary step to a WMA permit and consists of the following (in chronological order):

1. Request for site exam. This is the first opportunity for public comment on a proposed source. The preceding exploratory phase occurs at the discretion of a municipality, generally without regulatory oversight.
2. Pump test proposal. The municipality submits a proposal to DEP describing the test including observation wells, gages, piezometers and other devices for measuring actual impact.
3. Source final report. The report evaluates the potential yield of the withdrawal point and provides data from the pumping test, details the geological conditions and degree of drawdown. DEP evaluates the degree of impact to natural resources, including amount of induced infiltration/capture base flow; evaluates land uses and other conditions to determine suitability of site as a new source. The Final Report must include a WMA application.
4. New Source Approval. Approval is based on the suitability of the site to sustain a rate which is within its safe yield and includes an evaluation of natural resource impacts of the source. The New Source Approval process approves the safe yield of source and the Water Management Act permit is the vehicle for regulating the source based on potential for environmental impacts. WMA permits require that the Interbasin Transfer Act permit, if required, is approved first, and includes conditions established in the Interbasin transfer approval.

River Basin Plans Basin plans were developed under the Commission's regulations (313 CMR2.00) to provide the essential hydrologic and water use information upon which to base permitting and other resource management decisions. The WMA schedule required DEP to permit four basins per year during the first round of permitting. There was insufficient time to develop full basin plans in that short a time, so the Commission and DEP decided to place the two efforts on different schedules. The Commission retained the responsibility to discuss and approve the water needs forecasts developed for the WMA permits as requested by communities.

Question. To what extent does the WMA take into account other statutes like the Endangered Species Act? The Act does consider other statutes, including the Interbasin Transfer Act and the Endangered Species Act. The MEPA process as a coordinating mechanism for interagency issues was suggested as it incorporates a public comment period and looks at cumulative impact in the basin.

Bob Zimmerman stated that aquifers are *regional resources* and are usually not wholly within a single town. The WRC and other regulatory programs should require towns to work together in order to get permit approval. He says that modeling of aquifers can be done fairly inexpensively, as the CRWA has done for the upper Charles. *Sustainability* of the resource use is the goal. A better understanding is needed of surface and land use and aquifer recharge. He gave an example in Franklin, where CRWA found that a one percent increase in impervious surface had a dramatic result on aquifer recharge. Gary Clayton seconded Bob's sentiments in that he would like to see a comprehensive look at these resources rather than on a site by site basis.

Peter Webber asked how the existing statutory framework can be used to achieve the desired results. The Governor's Executive Order 385 (growth planning) is a vehicle to direct state agencies' actions on permitting and regulation. Jan Reitsma said there is still an opportunity to influence the report that is going to the Governor soon that makes recommendations for MEPA thresholds. It is known that the Ipswich, Neponset, and Charles basins are all stressed. Peter Webber would add the Quabbin/Wachusett watershed to the list of basins of concern and would like to see hydrological studies of these basins first. He wants a definition of "stressed basin" developed that can be used.

Gary Clayton suggests putting towns "on notice" early, before they start into a multiple year process, that they might not get more water because of resource limitations. The WRC can do a better job of informing towns what aquifers are "available". Clayton said he believes that the WRC can use existing data to promote regulatory decisions and suggests that further study is not necessary to make some of the tough decisions now.

Peter Webber agreed with Clayton and suggested that the first step is to define "stressed" and specify which basins meet the criteria. Then find the right authority that exists to "raise the bar". A caution was raised that a policy focusing on stressed basins might neglect a river until it is stressed, which would be contrary to policy and good sense.

Bob Zimmerman asked the Commission to consider adopting a policy that requires remediation measures in stressed basins, such as stormwater remediation, I/I, and decentralized wastewater options, for example, as a condition of approval for Interbasin Transfer Act permits. He stated that the goal should be to put the water back in the aquifer. He subsequently volunteered CRWA to draft a list of remediation measures, examples, etc. He will provide a draft that the WRC can use for comment and development. Gary Clayton volunteered to provide a definition of "stressed".